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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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06/04/2007

Jie Wang

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EXAMINER

DOAN, PHUOC HUU

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

02/04/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/591,739	Applicant(s) WANG, JIE	
	Examiner PHUOC DOAN	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 17 is/are rejected.
- 7) ☒ Claim(s) 3-16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 09/06/2006, 06/28/2007 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim - 35 USC § 101

3. Analyzed and evaluated the method claim 1 is compliance with the requirement of 35 U.S.C. 101.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hulkkonen (US Pub No: 2004/0029587) in view of Dalvie (US Patent No: 7,062,270).**

As to claim 1, Hulkkonen discloses a method for implementing access restriction of mobile networks (Fig. 1, Roaming/Handover restrictions, par [0009]), comprising the steps of: a Mobile Station (MS) (Fig. 1, Mobile Station/User Equipment #14) inquiring a list of forbidden Public Land Mobile Networks (PLMNs) (see Abstract, and par [0019-0020] **“handover a list identifying all radio access network”**) and access technology identifiers (par [0002] **“GSM identified, used SIM/USIM”**), which is saved by the MS (SIM/USIM that stored in the User Equipment #14), when the MS selects a PLMN network (Fig. 1, par [0010-0013] **“User Equipment #14 selected PLMN for handover”**); the MS determining whether the selected PLMN network (par [0002] **”user selected with the same access network, or another access network as user desired connection”**) and the access technology exist in the list of forbidden PLMNs (par [0045, 0051-0052] **“the list permitted/allowed user to connect”**) and access technology identifiers (GSM identified, **used SIM/USIM**). However,

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Hulkkonen does not clearly disclose if they exist, the MS sending no Location Updating Request to a Mobile Switching Center/Serving GPRS Support Node (MSC/SGSN) of a Core Network; otherwise, the MS sending the Location Updating Request to the MSC/SGSN in order to access to the network.

But, Dalvie discloses if they exist, the MS sending no Location Updating Request to a Mobile Switching Center/Serving GPRS Support Node (MSC/SGSN) of a Core Network; otherwise, the MS sending the Location Updating Request to the MSC/SGSN in order to access to the network (Col. 2, lines 9-22 “Location Update request message that allowed the mobile for roaming”, and Col. 3, line 56 to Col. 4, line 20 “roaming enhancement node, e.g., **location update procedure**”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hulkkonen, with Dalvie's discloses, in order to provide an improved method for controlling roaming in wireless communication systems in which compatible with various systems such as GSM, WCDMA, WLAN, and/or other types to share the PLMN number.

As to claim 2, Dalvie further discloses the method according to claim 1, further comprising the step of: generating the list of forbidden PLMNs (Col. 2, lines 40-62 “roaming restriction that equates to the list of forbidden, or location update reject message”) and access technology identifiers (Col. 1, lines 11-55 “GSM, SIM/USIM”); wherein the MS sends the Location Updating Request to the MSC/SGSN (Col. 3 lines 56-67 “location update request from the mobile”); if the MSC/SGSN determines not to permit the subscriber to access to the network through the current access network, it returns a Location Updating Reject Message to the MS (Col. 2, lines 55-56 “Location Updating Reject message to the mobile”), with a reason value in the Location Updating Reject message (Col. 6, lines 49-67 “Reject caused value”); the MS records the PLMN number of the access network and the access technology identifier which are forbidden to access in the list of forbidden PLMNs and access technology identifiers according to the reason value in the Location Updating Reject message (Col. 5, lines 60 to Col. 6, line 10 “modified/updated location that is restricted”).

6. **Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hulkkonen (US 2004/0029587) in view of Dalvie (US 7,062,270), and further in view of Phu (US Patent No: 7,623,504).**

As to claim 17, Hulkkonen and Dalvie disclose the method according to claim 1, **but Hulkkonen and Dalvie fail to disclose** wherein the PLMN network is a Global System of Mobile (GSM) network, a Wideband Code Division Multiple Access (WCDMA) network, a Wireless Local Area Network (WLAN) or a Bluetooth network.

However, Phu discloses wherein the PLMN network is a Global System of Mobile (GSM) network, a Wideband Code Division Multiple Access (WCDMA) network, a Wireless Local Area Network (WLAN) **or** a Bluetooth network (Col. 1, line 44 to Col. 2, line 26 “provide mobility to the user equipment in plurality communication systems”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hulkkonen and Dalvie, with Phu's system, in order to provide the mobile IP and simple IP services in different communication systems/networks compatibility such as the long range and short range communication, e.g., wireless local area network, GSM, WCDMA, etc.

Allowable Subject Matter

7. Claims **3-16** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten **claims 3, 4, 5, 8** in independent form including all of the limitations of the base claim and any intervening claims.

As to claim 3, the prior art of record either alone or in combination do not disclose the method according to claim 2, wherein the step of the MS recording the PLMN number of the access network and the access technology identifier which are forbidden to access in the list of forbidden PLMNs and access technology identifiers further comprises: the MS analyzing the reason value in the Location Updating Reject Message, and recording the PLMN number of the access network that the MS is located currently and the access technology identifier in the forbidden list of PLMNs and access technology identifiers if the reason value is "current access technology of PLMN is not permitted"; the MS recording the PLMN number and all the access technology identifiers in the list of forbidden PLMNs and access technology identifiers if the reason value is "PLMN is not permitted".

As to claim 4, the prior art of record either alone or in combination do not disclose the method according to claim 1, further comprising the step of: modifying the content of the list of forbidden PLMNs and access technology identifiers; wherein, if the MS successfully accesses to a certain PLMN network through one access technology in a manual PLMN network selection mode, the MS determines whether the PLMN number of the accessed network and corresponding access technology identifier exist in the list of forbidden PLMNs and access technology identifiers saved by the MS; if they exist in the list, the MS deletes the access technology identifier corresponding to the PLMN number from the list.

As to claim 5, the prior art of record either alone or in combination do not disclose the method according to claim 1, wherein the list of forbidden PLMNs and access technology identifiers comprises: at least one group of access restriction rule data, wherein, each group of the access restriction rule data has five bytes, the first three bytes are used for storing the PLMN numbers, and the fourth and the fifth bytes are respectively used for storing the access technology identifiers.

As to claim 8, the prior art of record either alone or in combination do not disclose the method according to claim 2, wherein the list of forbidden PLMNs and access technology identifiers comprises: at least one group of

access restriction rule data, wherein each group of the access restriction rule data has five bytes, the first three bytes are used for storing the PLMN numbers, and the fourth and the fifth bytes are respectively used for storing the access technology identifiers.

Dependent claims 6-7, 9-16 are allowance as set forth in above claims.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUOC DOAN whose telephone number is (571)272-7920. The examiner can normally be reached on 10:00AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LESTER KINCAID can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PHUOC DOAN/
Examiner, Art Unit 2617